

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for requesting channel quality information (CQI) in a base station of a wireless communication system, comprising:

- a) determining timing of a channel quality information request;
- b) requesting an automatic repeat request acknowledgement (ARQ-ACK) message of downlink data ~~upon requesting~~and the CQI from a subscriber station at the determined timing;
- c) allocating a radio resource for the ARQ-ACK message and a report of the ~~channel quality information~~CQI to the subscriber station;
- d) receiving ~~information on the~~ ARQ-ACK message ~~and including the channel quality report~~CQI from the subscriber station; and
- e) determining a modulation and coding level of downlink data by extracting the ~~channel quality report information~~CQI from the ARQ-ACK message.

2. (Original) The method for reporting the channel quality information of claim 1, further comprising:

- a-1) determining whether uplink data to be received by the base station exists, after a);
- b-1) transmitting a piggyback identifier of uplink data to be used to request the CQI to the subscriber station when the uplink data exists;
- c-1) allocating a radio resource for reporting the CQI to the subscriber station;
- d-1) receiving the channel quality report information piggybacked on the uplink data; and
- e-1) extracting the CQI from the uplink data, and determining a modulation and coding level of downlink data based on the reported CQI.

3. (Previously Presented) The method for reporting the channel quality information of claim 2, further comprising:

- a-2) determining whether the ARQ-ACK message exists in a-1), when no uplink data to be received by the base station exists;

b-2) transmitting a CQI REQuest (REP_REQ) medium access control (MAC) message to the subscriber station when no ARQ-ACK message exists;

c-2) allocating the radio resource for reporting the CQI to a dedicated channel;

d-2) receiving the REP_REQ MAC message through the dedicated channel; and

e-2) determining a modulation and coding level of downlink data based on the reported CQI.

4. (Previously Presented) The method for reporting the channel quality information of Claim 1, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink.

5. (Previously Presented) The method for reporting the channel quality information of Claim 1, wherein information on the radio resource allocated for reporting the CQI is transmitted while being included in the UpLink-map (UL-MAP) of a downlink frame.

6. (Previously Presented) The method for reporting the channel quality information of Claim 1, further comprising: controlling the period and frequency of the CQI based on the received CQI.

7. (Original) The method for reporting the channel quality information of claim 4, further comprising:

allocating a radio resource for reporting the CQI at the front time slot of the uplink resource for the subscriber station having the larger standard deviation of the CINR.

8. (Currently Amended) A method for reporting channel quality information in a subscriber station of a wireless communication system, comprising:

a) determining whether transmission request of an ARQ-ACK message and a Channel Quality Information (CQI) REQuest ~~Media Access Control (REP_REQ MAC) message~~ is provided from a base station;

b) updating ~~the two values~~ a value of the CQI into a latest values-value by measuring the CQI when the transmission request is provided;

c) acknowledging a radio resource allocated for the ARQ-ACK message and the CQI;
and

d) transmitting the ARQ-ACK message including the CQI to a base station ~~while being included in the ARQ-ACK message.~~

9. (Original) The method for reporting the channel quality information of claim 8, further comprising:

a-1) determining whether a piggyback identifier for transmitting the CQI is transmitted from the base station;

b-1) measuring the CQI and updating the same into the latest values when the piggyback identifier is transmitted;

c-1) acknowledging a radio resource allocated for the CQI among the radio resources piggybacked on the uplink data; and

d-1) transmitting the CQI piggybacked on the uplink data to the base station.

10. (Original) The method for reporting the channel quality information of claim 8, further comprising:

a-2) determining whether the REP_REQ MAC message is transmitted from the base station;

b-2) measuring the CQI and updating the same into the latest value when the REP_REQ MAC message is transmitted;

c-2) acknowledging a radio resource of a dedicated channel allocated for the CQI report;
and

d-2) transmitting the CQI through the dedicated channel to the base station.

11. (Previously Presented) The method for reporting the channel quality information of Claim 8, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink.

12. (Previously Presented) The method for reporting the channel quality information of Claim 8, wherein the radio resource allocation information for reporting the CQI transmitted to the base station is included in an UpLink-map (UL-MAP) of an uplink frame.

13. (Cancelled)

14. (Currently Amended) A wireless communication system, comprising:
a base station configured to determine timing of a channel quality information (CQI) request, request an automatic repeat request acknowledgement (ARQ-ACK) message of downlink data ~~upon requesting~~ and a CQI from a subscriber station at the determined timing, and allocate a radio resource for the ARQ-ACK message and a report of the ~~channel quality information~~ CQI to the subscriber station; and
a subscriber station configured to transmit ~~information on the~~ ARQ-ACK message and including the channel quality report CQI to the base station,
wherein the base station determines a modulation and coding level of downlink data by extracting the ~~channel quality report information~~ CQI from the ARQ-ACK message.

15. (Currently Amended) The system of claim 14, wherein the ~~subscriber~~ subscriber station measures the CQI and updates the CQI into a latest value when the base station requests the ARQ-ACK message and the CQI.

16. (Currently Amended) The system of claim 14, wherein the base ~~station~~ station determines whether uplink data to be received exists, transmits a piggyback identifier of uplink data to be used to request the CQI to the subscriber station when the uplink data exists, allocates a radio resource for reporting the CQI to the subscriber station, receives the channel quality report information piggybacked on the uplink data from the subscriber station, extracts the CQI from the uplink data, and determines a modulation and coding level of downlink data based on the reported CQI.

17. (Currently Amended) The system of claim 16, wherein the base ~~station~~ station determines whether the ARQ-ACK message exists when no uplink data to be received exists,

transmits a CQI REQuest (REP_REQ) medium access control (MAC) message to the subscriber station when no ARQ-ACK message exists, allocates the radio resource for reporting the CQI to a dedicated channel, receives the REP_REQ MAC message through the dedicated channel, and determines a modulation and coding level of downlink data based on the reported CQI.

18. (Previously Presented) The system of claim 14, wherein the CQI is a mean value or standard deviation of a carrier to interference noise ratio (CINR) of the downlink.

19. (Previously Presented) The system of claim 18, wherein the base station allocates a radio resource for reporting the CQI at the front time slot of the uplink resource for the subscriber station having the larger standard deviation of the CINR.

20. (Previously Presented) The system of claim 14, wherein information on the radio resource allocated for reporting the CQI is transmitted while being included in the UpLink-map (UL-MAP) of a downlink frame.

21. (Previously Presented) The system of claim 14, wherein the base station controls the period and frequency of the CQI based on the received CQI.